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UNIX SYSTEMS NEWSLETTER

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1. GENERAL

1.1 UNIX Users' Meeting

The next UNIX Users' Meeting will be held on March 10, 1983 at Bell Laboratories, Naperville, Ill. in the Indian Hill Auditorium. Please note that this meeting will feature a different format from the previous meetings. The morning session, to be held in the auditorium, will have the traditional format; i.e., presentations will be made to the entire audience. The afternoon session will feature twenty one-hour presentations given in four 50-person conference rooms as well as the auditorium. Users may select which talks they would like to hear. These rooms will be filled on a first-come, first-serve basis.

The presentations made in the Indian Hill Auditorium will be televised to the Arnold Auditorium at Murray Hill from 8:30 a.m. to 5:00 p.m. CST. There will be several "birds-of-a-feather" sessions held at Indian Hill on the following day, March 11, 1983.

1.2 I/O Performance in UNIX 5.0

A user compared the performance of I/O on UNIX Release 4.0 and 5.0 on both the 3B20S and the VAX-11/780 by timing two programs, one of which did I/O using the `read` and `write` system calls to move 512 bytes at a time, and the other of which did I/O using the `fgets` and `fputs` functions in the Standard C Library to move a line of text at a time.

In Release 4.0, the `read/write` method was substantially faster than the `fgets/fputs` method. To the user's surprise, in Release 5.0 the `read/write` method didn't improve, but the `fgets/fputs` method had become nearly twice as fast, and therefore much faster than `read/write`!

The explanation was simple but illuminating. Two improvements had been made in Release 5.0. The `fgets/fputs` functions had been speeded up by using efficient internal buffering instead of the previous loops on `getc` and `putc`. Still, they should not have been faster than the basic system calls. The second improvement was the change of the disk block size and I/O buffer size from 512 to 1024 bytes. As the benchmark used the literal 512 for `read/write`, that program was doing twice as many system calls as the `fgets/fputs` program, whose internal buffers were twice as large!

Replacing the literal 512 by the constant BUFSIZ (defined in the `<stdio.h>` header file) eliminated the discrepancy. Both programs were now about twice as fast in Release 5.0 as in Release 4.0, and the `read/write` version was slightly faster than the `fgets/fputs` version, as expected.

Two morals are clear: For ultimate speed, use basic UNIX I/O, but the Standard C Library isn't bad for general use. Also, the use of the literal 512 is considered harmful.

1.3 UNIX SYSTEM RELEASE 6.0

UNIX System Release 6.0 planning and development is continuing on schedule. The target ready-to-order date is December 15, 1983. The most probable features include:

- Demand Paging
- Job Control
- `shell` Enhancements
- Curser/Terminfo Package
- Selected BSD commands (`ls`, `mail`, `pg`)
- `cron/at` Package
- Arbitrary length variable names in `C` (flexnames)

Several networking packages were unbundled for the commercial version of Release 5.0 (called System V). These packages, NSC, Synchronous Terminal and BX.25 will be available as add-ons to Release 6.0. Further information on the contents and status of Release 6.0 will be presented at the March 10 Users' Meeting.

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2. UNIX CUSTOMER SUPPORT

2.1 INTRODUCTION

Beginning March 21, 1983, UNIX Customer Support will move to Western Electric's Network Software Center:

UNIX Systems Support Center
2600 Warrenville Road
Lisle, Illinois 60532
(312) 260-4880

The purpose for this move is to align the services offered to Bell System users with what is being offered commercially. The UNIX Systems Support Center, in Illinois, was chartered in October 1982, to provide support services to commercial licensees of UNIX System V.

The support services currently being provided to commercial licensees of UNIX System V are:

Level 1 — Basic support services.

* Monthly newsletter
* Periodic updates to software and documentation
* Problem Reporting Facility
* Distribution of known-problems
* Electronic Mail

Level 2 — Enhanced support services.

* All services in level 1, plus
* A Hotline, 8:00am to 5:00pm, CST
* Answering service out-of-hours with call-backs

Effective March 21, all Level 2 services will be provided to Bell System UNIX Administrators. Each data center, defined as residing on one floor in one physical facility, managed by one supervisor, will have the following personnel registered with the Support Center:

- One Site Manager
- One System Administrator per CPU.

Only these personnel will be allowed to contact the Support Center. The registration process will be described later in this article.

2.2 WHAT IS SUPPORTED

Processors

The UNIX Operating System is commercially supported on the following processors:

- PDP-11/70 & /45
- VAX-11/780
- VAX-11/750

With the transition of customer support, the following 3B processors, for Bell System Customers only, will be added:

- 3B20S
- 3B5

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Software
The supported UNIX Operating System releases include:

4.0	4.1.4	5.0
4.1	4.2	5.1
4.1.1	4.2.1	System V
4.1.3		

When UNIX System 6.0 becomes available, versions released prior to System 5.0, will no longer be supported.

Support for add-on systems (e.g. POLARIS) will also be handled through the new Support Center. As new systems are made available, appropriate support services will follow.

2.3 DEFINITION OF SERVICES

The following section describes the various support services being offered, and where applicable, what facility they are replacing.

Newsletter
The newsletter, entitled *Support & Update News*, will be a professionally published monthly periodical distributed to all UNIX System Administrators. This new newsletter will replace this periodical.

Periodic Updates
When available, bug fixes and documentation updates will be distributed to UNIX sites. This refers to the standard point-releases with the associated documentation updates.

Problem Reporting Facility
This is the equivalent to the `trouble` command. Problems can be reported (by anyone) via a guest login facility which will prompt the user for all necessary information. Support Center personnel will review the daily problem reports and, where applicable, generate Modification Requests (MRs). The originator's System Administrator will receive a report acknowledging receipt.

Distribution Of Known-Problems
This is a periodic distribution of abstracts of known-problems and, where available, known-solutions. Quarterly, the MR'ed problems will be printed, bound and distributed to System Administrators.

Electronic Mail
This is a vehicle for UNIX anyone to submit suggestions, etc, to the support and development organizations. This is not intended for requests or problem reporting.

Cornet 340-2162
Commercial (312) 260-1844
`nwuxd!ucsmail`

Hotline
This is the avenue for reporting serious, service affecting problems to the Support Center. Problems reported through this vehicle will be given top priority. This service will be provided 8:00am to 5:00pm Central Standard Time. In addition, an out-of-hours answering service will provide a 2-hour call-back. Please note, out-of-hours call-backs will be provided for severity 1 problems only (i.e. system is inoperable.)

2.4 SERVICE DIFFERENCES

The differences implied by the above definition of services are detailed in this section.

1. The `trouble` command is being replaced by the guest login.
2. System administrators and site or data center managers are the only personnel permitted to call the hotline.

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3. The electronic mail facility is available for providing suggestions.

4. One newsletter to each System Administrator.

2.5 REGISTERING SYSTEM ADMINISTRATORS

Each machine running the UNIX Operating System will be allowed two people to interface with the Support Center: the Site or Data Center Manager (the System Administrator's supervisor), and the System Administrator.

Pre-registration

A special login is setup on a Support Center processor to allow pre-registration for System Administrators and Site Managers. All UNIX System Administrators should register by using this special support registration login. The specifics follow:

- Activated March 10 through March 18
- Cornet 340-2162
- Commercial (312) 260-0218
- `login: newcust`

Problems with this login should be directed to the UNIX Systems Support Center: (312) 260-4880.

Normal Registration

Individuals unable to pre-register should contact the support registration operators at cornet 231-4200, commercial (201) 582-4200. The staff there will assist in the registration process.

The data collected from either registration facility will be used to update other records presently kept (such as tape distributions, site information, release information, etc), to come up with a detailed, accurate listing of our customers. As new customers are registered, the information will be entered into our customer service database management system. This DBMS is accessed each time a call is made to the hotline, for purposes of verifying support.

Upon registration, each System Administrator and Site Manager will receive a package of support literature which details all support services. Until the support literature package is received, problem calls will continue to be taken by the existing Hotline at Murray Hill: cornet 8231-4200, commercial (201) 582-4200.

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Reader Response Form

Mail to: Donna M. Carbone
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Murray Hill, NJ 07974

Name: _____ **Company:** _____

Phone: _____ **Your project:** _____

Contribution or comment: